

Attorney Docket No.: 00CON102P

**REMARKS/ARGUMENTS**

In the specification, the paragraph beginning on page 20, line 11, and the paragraph beginning on page 22, line 16, have been amended in response to Examiner's request. In addition, the title of the present application has been amended in response to the Examiner's request. Thus, Applicant respectfully requests withdrawal of the specification objections.

In amended Figure 4A, the reference sign 412 has been removed and in amended Figure 4B, the reference sign 432 has been removed. Thus, Applicant respectfully requests withdrawal of the drawing objections.

Claims 1-9 and 11-28 remain pending in this application. Applicant has amended claims 1, 3, 9, 12-15, 17-21, and 23. Applicant has cancelled claim 10. Applicant respectfully requests reconsideration and allowance of the pending claims in view of the following amendments and the remarks.

**A. Rejection of Claims 1-3, 7-10, 21-23, and 27-28 Under 35 USC §102**

The Examiner has rejected claims 1-3, 7-10, 21-23, and 27-28 under 35 USC §102(b) as being taught by Keckler et al, U.S. Patent No. 5,574,939 (herein "Keckler").

In response, Applicant submits that, as amended, independent claims 1, 9, and 21 are allowable because Keckler does not teach, suggest, or disclose instruction packets comprising a plurality of issue groups wherein each issue group is sent separately to the processor for execution. Keckler teaches a processing unit having the entire instruction

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word and having a synchronizer for selecting which field of the instruction set to execute at any given time. (Keckler at Col. 2 lines 21-48). This is one of the issues addressed by the present invention since, in the present invention, the instruction bus need not be the entire width of the instruction word unlike in Keckler.

In contrast to Keckler, the present invention divides each instruction word into a plurality of issue groups. Thus, the instruction bus needs only be equal to the size of the largest issue group because only one issue group is sent to the processing unit for execution at any given clock cycle. Keckler sends the entire instruction word to the processing unit, thus requiring the instruction bus to be as large as the instruction word. In addition, Keckler performs the selection of processing threads in the processing unit based on independence of the instruction fields in the word. In contrast, the present invention only sends a portion of the instruction set to the processing unit during each clock cycle thus requiring a smaller instruction bus width.

Thus, applicant submits that the present invention is patentably distinguishable over Keckler because Keckler does not teach, disclose, or suggest the limitation of preprocessing each instruction set by dividing an instruction set into a plurality of issue groups and sending an issue group from each separate instruction set to a separate processing unit for processing during each clock cycle. In Keckler, the entire instruction set is sent to the processing unit and then the scheduling is performed at the processing unit.

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**B. Rejection of Dependent Claims 2-8, 10-20, and 22-28**


Applicant submits that dependent claims 2-8, 10-20, and 22-28, being dependent upon allowable base claims, are allowable for at least the foregoing reasons.

**C. Conclusion**

For all the foregoing reasons, Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

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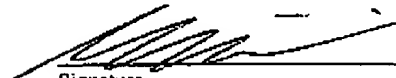
Respectfully Submitted;  
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Dated: 3/5/04  
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